

WHAT IS CLAIMED IS:

1. A television signal processing and recording system for handling both digital and analog video signals, said system comprising:
 - a video decoder in an analog signal path for converting an analog signal to a digital signal;
 - an encoder for compressing said digital signal output by said video recorder; and
 - a connection for routing said compressed digital signal into a digital signal path in which said compressed digital signal is either decompressed with a decoder and output to a television set or recorded on a digital data storage device.
2. The system of claim 1, further comprising a demultiplexer for demultiplexing said compressed digital signal when said compressed digital signal is routed to said digital signal path.
3. The system of claim 2, further comprising a digital tuner for outputting a tuned digital signal into said digital signal path.
4. The system of claim 3, wherein said digital tuner outputs said digital signal to said multiplexer.
5. The system of claim 1, wherein said digital data storage device is a hard disk drive.
6. The system of claim 1, further comprising an analog tuner for outputting said analog signal to said video decoder.
7. The system of claim 1, wherein said encoder is an MPEG2 encoder.

8. The system of claim 1, wherein said decoder is an MPEG2 decoder.

9. The system of claim 1, wherein said decoder, encoder, connection and decoder are incorporated in a set-top box.

10. The system of claim 1, wherein said digital data storage device is incorporated in a personal video recorder.

11. The system of claim 1, wherein said decoder, encoder, connection, decoder and digital data storage device are incorporated in a single set-top unit.

12. A method of processing and recording a television signal that handles both digital and analog video signals, said method comprising:

converting an analog signal to a digital signal; and

compressing and decompressing said digital signal before outputting said digital signal to a television set.

13. The method of claim 12, further comprising, after converting said analog signal to said digital signal and after compressing said digital signal, routing said compressed digital signal from an analog signal path to a digital signal path in which said compressed digital signal is decompressed and output to a television set.

14. The method of claim 13, further comprising demultiplexing said compressed digital signal when said compressed digital signal is routed to said digital signal path.

15. The method of claim 13, further comprising tuning a digital signal with a digital tuner and outputting said tuned digital signal into said digital signal path.

16. The method of claim 12, further comprising, after converting said analog signal to said digital signal and after compressing said digital signal, recording said compressed digital signal on a digital data recording device.

17. The method of claim 16, wherein said converting and compressing said digital signal are performed with a set-top box and said recording is performed by a personal video recorder.

18. A system for processing and recording a television signal that handles both digital and analog video signals, said system comprising:

means for converting an analog signal to a digital signal;
means for compressing and decompressing said digital signal.

19. The system of claim 18, further comprising means for outputting said digital signal to a television set.

20. The system of claim 18, further comprising means for recording said digital signal when said digital signal is compressed.

21. The method of claim 20, wherein said means for converting and for compressing and decompressing said digital signal are housed in a set-top box and said means for recording are housed in a personal video recorder.

22. A television signal processing and recording system for handling both digital and analog video signals, said system comprising:

a video decoder in an analog signal path for converting an analog signal to a digital signal;

an encoder for compressing said digital signal output by said video recorder; and
a decoder for decompressing said digital signal compressed by said encoder.

23. The system of claim 22, further comprising a connection for outputting said digital signal to a television set when said digital signal is decompressed.

24. The system of claim 22, further comprising a digital data storage device for recording said digital signal when compressed by said encoder.

25. The system of claim 22, further comprising a digital tuner for outputting a tuned digital signal to said decoder.

26. The system of claim 22, further comprising an analog tuner for outputting a tuned analog signal to said video decoder.

27. The system of 22, wherein said digital data storage device is a hard disk drive.